

NSCMP Mission Statement

The Non-Stockpile Chemical Materiel Project (NSCMP), which is under the U.S. Army Program Manager for Chemical Demilitarization (PMCD), was established to provide centralized management and direction to the Department of Defense for the disposal of non-stockpile chemical materiel in a safe, environmentally sound, and cost-effective manner. Specifically, the Product Manager for Non-Stockpile Chemical Materiel is charged with:

- identifying the type and location of chemical warfare materiel requiring destruction
- researching, developing, and testing chemical warfare materiel destruction technologies
- destroying former chemical weapons production facilities and related equipment
- supporting the Chemical Weapons Convention treaty obligations

For more information, please call the Public Outreach and Information Office for the Program Manager for Chemical Demilitarization at: (800) 488-0648 or visit our web site at:
www-pmcd.apgea.army.mil



Mobile Munitions Assessment System



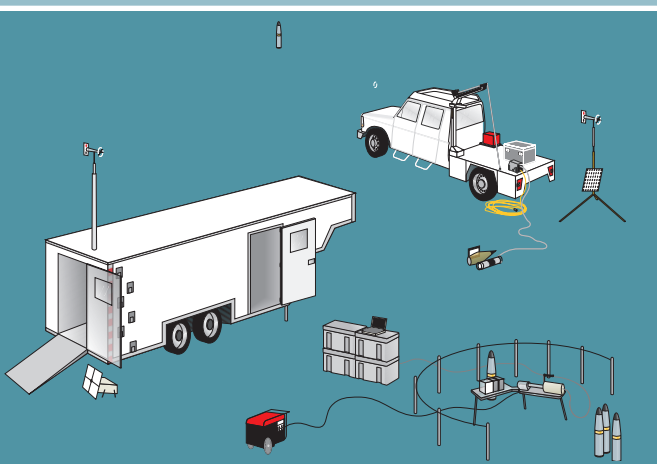
MMAS

What is the Mobile Munitions Assessment System (MMAS)?

The MMAS is a transportable treatment system that has the capability to identify the contents of unidentified munitions without opening them, and then communicate that information to response personnel. The MMAS collects the necessary data to assess the risk associated with handling, transporting, storing, and disposing of recovered munitions. There are two phases of the MMAS, Phase I and Phase II.

Why was the MMAS developed?

The MMAS was developed to help the U.S. Army accomplish its mission to dispose of recovered chemical warfare materiel in a safe, environmentally sound, and cost-effective manner. The MMAS greatly reduces risk to the public and response personnel by rapidly obtaining detailed information about discovered chemical weapons, and distributing that information to the appropriate authorities and responder personnel.



What are the major components of the MMAS?

The MMAS has three main functions: identification, data management, and communication. The MMAS uses a variety of non-intrusive assessment equipment and communication devices. This equipment includes portable x-ray devices, a Portable Isotopic Neutron Spectroscopy (PINS) system, and an air and weather monitoring system.

Munitions are analyzed using PINS and on-board computers. The PINS system uses three components to identify the elements inside a munition:

(1) a neutron source, (2) a gamma ray detector, and (3) a multi-channel analyzer. By measuring the energies and intensities of the gamma rays reflected off the munitions, PINS is able to predict the presence and relative concentration of specific chemical elements.

The air and weather monitoring system is used to monitor the changing conditions in the environment surrounding the munition. If a leaking munition is present, the weather equipment helps determine the direction and speed at which the chemical agent will travel. This information will help emergency responders determine the safest geographic zone away from the site and evaluate if evacuations are necessary. Additionally, this system can be used to assess the safest transportation route and time for transport of munitions, if necessary.

The MMAS is also capable of communicating on-site information to emergency responders and site personnel through a two-way radio system, a wireless communication system, and a satellite uplink system.

How does the MMAS operate?

1. The MMAS is dispatched to a munitions recovery site. The crew's first task is to set up a safety zone around the munition. This is accomplished using sophisticated monitoring equipment, which assesses weather conditions, including wind direction, and analyzes the air to determine if the munition is leaking.
2. The stability of the munition is assessed using advanced X-ray technology.
3. The munition's chemical fill is determined using PINS.
4. The MMAS is equipped with a digital camera and a wireless remote video camera with a high frequency transmitter. This equipment is used to gather as much information as possible about the site, as well as the condition and location of the munitions.
5. Data gathered by the MMAS crew are sent to the appropriate authorities and response personnel via land line, satellite, cellular phone lines, and short-wave radio. This information allows technical experts and response personnel to determine the urgency of individual recovery actions and the safest handling procedures.

What is the difference between the MMAS Phase I and II?

Both the MMAS Phase I and the MMAS Phase II are designed for the purpose of on-site characterization of munitions and use similar technology. However, the MMAS Phase I is housed in a truck and trailer combination, while the MMAS Phase II is housed in a 35-foot motor home. The MMAS Phase I will be primarily used on the west coast of the United States and Phase II will be used on the east coast.